

**CORRIGENDUM–IV RFP for Procurement and Implementation of Change Data Capture (CDC) and Extract Transform Load (ETL)**

Ref: LIC/CO/IT-SD/EFEAP-NEXT/CDC-ETL/24-25/01 Dated: 10/05/2024

Date: 12/07/2024

**CORRIGENDUM – IV**

Following modification is being issued under the above referred RFP. The bidders to note that these responses/clarifications shall form an integral part of the above referred RFP and resulting contracts, if any:

Sl No.	Clause ref.	Clause (in brief) of RFP requiring clarification (s)	Change Reason	LIC Clarification/ modification in clause (highlighted in bold)
1.	Annexure-22  Activity Schedule	Bid Document Download End Date: <b>15/07/2024   02.00 PM</b>  Bid Submission End Date: <b>15/07/2024 up to 02.30 PM</b> (Upload of Documents on the e-Tender Platform)	<b>Modification</b>	Bid Document Download End Date: <b>22/07/2024   02.00 PM</b>  Bid Submission End Date: <b>22/07/2024 up to 02.30 PM</b> (Upload of Documents on the e-Tender Platform)
2.	Annexure-22  Activity Schedule	Opening Date: <b>15/07/2024   03:00 PM</b> . The Bids will be opened at the e-Tendering portal by LIC in virtual presence of the bidders' representatives who have submitted the bid and <b>email request is received</b> from the bidders at least one day prior to bid opening date.	<b>Modification</b>	Opening Date: <b>22/07/2024   03:00 PM</b> . The Bids will be opened at the e-Tendering portal by LIC in virtual presence of the bidders' representatives who have submitted the bid and <b>email request is received</b> from the bidders at least one day prior to bid opening date.

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3.	4.3.2  Data Architecture and infrastructure	<p><b>3. Transport and streaming pipeline</b> The proposed solution should implement the capability to transport data from source to target using Publish-subscribe (messaging), Event Streaming and replication methodologies.</p> <p><b>Following are the basic requirements from this integration:-</b></p> <p>(i) The proposed solution must provide the following for the Next Gen Digital Platform of LIC. Message broker-based (Asynchronous integration) implementation will be used for synchronising data from Core Insurance System.</p> <p>(ii) Data offloading (Digital Decoupling) from Core Insurance system to Application DB (CDC from Core Insurance) and as an Event Hub Platform for exchange/relay of events</p> <p>(iii) Bidder to implement the required Event Hub Platform for exchange/relay of events and also data Replication directly from source to target Database with capability for full or selected schema.</p> <p>(iv) <b>Next Gen Digital Platform of LIC :</b> The bidder shall also design and build the real time pipelines for streaming the Core Insurance, ODS and other</p>	<b>Modification</b>	<p><b>3. Transport and streaming pipeline</b> The proposed CDC solution should implement the capability to transport data using the following methods:</p> <p>a. Transfer data from Source Systems to Target systems like ODS, COMIS or other RDBMS Target systems using direct connector without the requirement for event broker.</p> <p>b. Transfer data from Source Systems to Target system at CADW using a file/database connector without the requirement for event broker.</p> <p>c. Publish data to two separate Event Clusters from Source Systems for consumption by Next Gen Digital Platform (One managed by System of Engagement and another managed by Data Lake).</p> <p><b>Following are the basic requirements Next Gen Digital Platform (System of Engagement and Data Lake) of LIC :</b></p> <p>i) Message broker-based (Asynchronous integration) implementation will be used for synchronising data from Source Systems. The bidder shall publish/subscribe via real time pipelines for streaming the Core Insurance, ODS and other Source systems data events to the event broker that will be consumed by different subscribers such as the business domain services ( Digital Applications ) within the System of Engagement and the Data Lake.</p> <p>ii) The bidder is not required to provision the Event</p>
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		<p>Source systems data events to an event broker that will be consumed by different subscribers such as the business domain services( Digital Applications ) within the System of Engagement and the Data Lake. The bidder shall provide necessary technical support required for the</p> <p>Targets, Data lake or other subscribers to consume these events.</p> <p>Solution to support Event Driven Architecture and Microservices Architecture by System of Engagement (Digital Platform) of LIC.</p>		<p>Broker/Cluster Platform for publishing data for Next Gen Digital Platform of LIC. Event Broker/Event Cluster Platform for publishing data to Next Gen Digital Platform of LIC will be made available by these two systems.</p> <p>iii) The proposed CDC solution should be able to publish data events to multiple Event Clusters.</p> <p>iv) Solution proposed by bidder should support Event Driven Architecture and Microservices Architecture of Next Gen Digital Platform of LIC.</p> <p>v) Bidder to implement the required CDC solution for exchange/relay of events and also data Replication directly from source to target Database with capability for full or selected schema.</p> <p>vi) The bidder shall provide necessary technical support required for the targets or other subscribers to consume the events.</p>
4.	4.3.2 Data Architecture and infrastructure	<p><b>5. Volumetric:</b> <b>Core Insurance Solution</b> Approx. Number of relevant tables per database: 400+ out of Total tables of &gt; 3000</p>	<b>Modification</b>	<p><b>5. Volumetric:</b> <b>Core Insurance Solution</b> Approx. Number of relevant tables per database to be considered as part of initial project implementation phase out of total 3000 tables:</p> <ul style="list-style-type: none"> <li>➔ For integration with target systems CADW, ODS and COMIS: 500+ tables</li> <li>➔ For System of Engagement: 1000 tables.</li> <li>➔ For Data Lake: 1000 tables.</li> </ul>

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5.	4.3.2  Data Architecture and infrastructure	<p>7. Source and Target Linkage:- The following end-to-end confirmed implementations are to be done by the bidder during initial project implementation phase.</p> <p>a) Core Insurance solution will work as source system for ODS, CADW, COMIS, Upcoming System of Engagement and Data Lake.</p> <p>b) ODS will also work as a source system for CADW, Upcoming System of Engagement and Data Lake.</p> <p>c) Data from Core Insurance is to be transformed and loaded in ODS and COMIS.</p> <p>d) Data from Core Insurance and ODS is to be provided as raw data or file as per requirement with basic transformation for consumption by CADW and upcoming IFRS-17/IND-AS system.</p> <p>e) Data from Core Insurance and ODS is to be streamed to an event broker for consumption by Upcoming System of Engagement and Data Lake.</p> <p>f) Any other implementations to fulfil the above end-to-end.</p> <p>Other existing and future implementations will be part of operational phase.</p>	<p>7. Source and Target Linkage:- The following end-to-end confirmed implementations are to be done by the bidder during initial project implementation phase.</p> <p>a) Core Insurance solution will work as source system for ODS, CADW, COMIS, Upcoming System of Engagement and Data Lake.</p> <p>b) ODS will also work as a source system for CADW, Upcoming System of Engagement and Data Lake.</p> <p>c) Data from Core Insurance is to be transformed and loaded in ODS and COMIS using direct connector and ETL process by the bidder.</p> <p>d) Data from Core Insurance and ODS is to be provided directly as raw data/file as per requirement with basic transformation for consumption by CADW and upcoming IFRS-17/IND-AS system. (In addition, converting the existing ETL jobs/creating new ETL jobs at CADW will be carried out during maintenance phase by the engineers specifically provided by the bidder for this purpose on demand basis.)</p> <p>e) Data from Core Insurance and ODS is to be published directly to event brokers for consumption by Next Gen Digital Platform of LIC (System of Engagement and Data Lake).</p> <p>f) Any other implementations to fulfil the above end-to-end.</p> <p>Other existing and future implementations will be part of operational/maintenance phase.</p>
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6.	<p>4.3.5</p> <p>Staging Area/Landing Zone</p>	<p>7. The Staging Area should have all the standard features and features not limiting to the following should be implemented by the bidder:</p> <ul style="list-style-type: none"> <li>a. Consolidation of data.</li> <li>b. Alignment of data from various source databases and maintenance of relationship between various source systems.</li> <li>c. Staging area should support independent scheduling and multiple targets.</li> <li>d. Data cleansing.</li> <li>e. Aggregation.</li> <li>f. Data archiving.</li> </ul>	<p><b>Modification</b></p>	<p>7. The Staging Area should have all the standard features and at least the following features should be implemented by the bidder:</p> <ul style="list-style-type: none"> <li>a. Consolidation of data.</li> <li>b. Alignment of data from various source databases and maintenance of relationship between various source systems.</li> <li>c. Staging area should support independent scheduling and multiple targets.</li> <li>d. Data cleansing.</li> <li>e. Aggregation.</li> </ul>
7.	<p>4.3.7</p> <p>Software Licensing</p>	<p>1. Bidder needs to provide software/tools and its subscription/licenses for:</p> <ul style="list-style-type: none"> <li>a. CDC Tool</li> <li>b. ETL Tool</li> <li>c. Data Transfer pipeline, Data streaming pipeline</li> <li>d. Any other Software required for end-to-end implementation.</li> </ul> <p>The bidder needs to determine the quantity of licenses required for each individual component of the proposed solution based on the scope of the project. Any shortfall in the quantity will have to be provided by the bidder at no additional cost to LIC.</p>	<p><b>Modification</b></p>	<p>1. Bidder needs to provide software/tools and its subscription/licenses for:</p> <ul style="list-style-type: none"> <li>a. CDC Tool</li> <li>b. ETL Tool</li> <li>c. Data Transfer/connector tool (if not part of CDC tool)</li> <li>d. Any other Software required for end-to-end implementation.</li> </ul> <p>The bidder needs to determine the quantity of licenses required for each individual component of the proposed solution based on the scope of the project. Any shortfall in the quantity will have to be Provided by the bidder at no additional cost to LIC.</p>

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8.	4.3.10  Monitoring and post implementation support	1. The bidder should provide and implement all future upgrades or version upgrades of the proposed software, tools and the solution during contract period without any cost.	<b>Modification</b>	1. The bidder should support and implement all future requirements of LIC including CDC/ETL requirement for additional tables as part of maintenance phase, and also provide and implement upgrades, version upgrades of the proposed software, tools and the solution contract period without any cost.
9.	5.1  Appointment of Onsite L2 Engineers		<b>Addition</b>	Number of L2 Engineer (ETL Specialists) for CADW: Three L2 Engineers specialized in proposed ETL tool are to be provisioned additionally for this purpose. These L2 resources will be deployed on demand basis for one year to create/modify ETL jobs for CADW. The number of ETL specialist L2 resources and duration of the deployment may vary based on the requirement.
10.	10.1  Project Timelines	Existing Timeline Table  Kindly refer Section-A of this document	<b>Modification</b>	Modified Timeline Table  Kindly refer Section-B of this document

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11.	10.2  Payment Terms	<p>1. <b><u>All software licenses/first year subscription cost associated with the Solution</u></b></p> <p>a. 70% Payment of Software Cost will be made after successful pilot implementation and sign-off by LIC as per Milestone M8.</p> <p>b. 20% Payment of Software Cost will be made after sign-off by LIC as per milestone M10.</p> <p>c. Remaining 10% Payment of Software Cost will be made after Project completion sign-off (M12).</p> <p>2. <b><u>Implementation Cost</u></b></p> <p>a. 40% Payment of Implementation Cost will be made after successful pilot implementation and sign-off by LIC as per Milestone M8.</p> <p>b. 50% Payment of Implementation Cost will be made after sign-off by LIC as per milestone M10.</p> <p>c. Remaining 10% Payment of Implementation Cost will be made after Project completion sign-off (M12).</p>	Modification	<p>1. <b><u>All software licenses/first year subscription cost associated with the Solution</u></b></p> <p>a. 35% Payment of Software Cost will be made after successful initial CDC implementation and sign-off by LIC as per Milestone M4.</p> <p>b. 35% Payment of Software Cost will be made after successful initial ETL implementation and sign-off by LIC as per Milestone M7.</p> <p>c. 20% Payment of Software Cost will be made after sign-off by LIC as per milestone M10.</p> <p>d. Remaining 10% Payment of Software Cost will be made after Project completion sign-off as per milestone M12.</p> <p>2. <b><u>Implementation Cost</u></b></p> <p>a. 10% Payment of Implementation Cost will be made after successful initial CDC implementation and sign-off by LIC as per Milestone M4.</p> <p>b. Total 20% Payment of Implementation Cost will be made after sign-off by LIC as per Milestone M5.  Out of this Total 20% Payment of Implementation Cost, 5% Payment of Implementation Cost may be made after sign-off by LIC for each incremental 100 table implementation.</p> <p>c. Total 10% Payment of Implementation Cost will be made after sign-off by LIC as per Milestone M6.  Out of this Total 10% Payment of Implementation Cost, 2% Payment of Implementation Cost may be made after sign-off by LIC for each incremental 100</p>
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				<p>table implementation.</p> <p>d. 10% Payment of Implementation Cost will be made after successful initial ETL implementation and sign-off by LIC as per Milestone M7.</p> <p>e. Total 20% Payment of Implementation Cost will be made after sign-off by LIC as per Milestone M8.</p> <p>Out of this Total 20% Payment of Implementation Cost, 5% Payment of Implementation Cost may be made after sign-off by LIC for each incremental 100 table implementation.</p> <p>f. 20% Payment of Implementation Cost will be made after sign-off by LIC as per milestone M10.</p> <p>g. Remaining 10% Payment of Implementation Cost will be made after Project completion sign-off as per milestone M12.</p>
12.	<p>10.4.</p> <p>Service Level Agreement (SLA)</p>	<p><b>Milestone Table</b></p> <p><b><u>Milestone M3</u></b></p> <p><b>Service Area:</b> All tool/software/solution License Procurement and implementation. Compliance of solution to applicable CA, VA, PT, IS Audit, IRDA Audit, LIC’s Information Security Policy and other regulatory requirements.</p> <p><b><u>Milestone M4</u></b></p> <p><b>Service Area:</b> Complete Setup Creation for CDC, data transfer and Staging area (Dev, UAT, Production and DR) and CDC tool readiness with data transfer of 200 tables</p>	<p><b>Modification</b> (Details of Milestone Table other than mentioned here are unchanged.)</p>	<p><b>Milestone Table</b></p> <p><b><u>Milestone M3</u></b></p> <p><b>Service Area:</b> All tool/software/solution License Procurement and installation, setup creation including staging area/landing zone. Compliance of CDC-ETL Solution to applicable CA, VA, PT, IS Audit, IRDA Audit, LIC’s Information Security Policy and other regulatory requirements.</p> <p><b><u>Milestone M4</u></b></p> <p><b>Service Area:</b> Complete Implementation of CDC solution and data transfer from source system to the targets for initial 100 tables.</p>



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	<p>from Core solution.</p> <p><b>Service Level:</b> To be completed within 30 days from Milestone M3.</p> <p><b><u>Milestone M5</u></b></p> <p><b>Service Area:</b> Complete Setup Creation for ETL (Dev, UAT, Production and DR) and ETL tool readiness with data ingestion of 200 tables at CADW.</p> <p><b>Service Level:</b> To be completed within 60 days from Milestone M3.</p> <p><b><u>Milestone M6</u></b></p> <p><b>Service Area:</b> CDC-ETL tool/software/solution readiness for remaining tables for Source and Target Systems.</p> <p><b>Service Level:</b> To be completed within 90 days from M3.</p> <p><b><u>Milestone M7</u></b></p> <p><b>Service Area:</b> Testing of Solution pipeline.</p> <p><b>Service Level:</b> To be completed within 10 days from milestone M4, M5, and M6. <b>Penalty:</b> Penalty of Rs. 1,000/- for delay per day.</p> <p><b><u>Milestone M8</u></b></p> <p><b>Service Area:</b> Pilot implementation.</p> <p><b>Service Level:</b> To be completed within 7 days from milestone M7.</p> <p><b><u>Milestone M10</u></b></p>	<p><b>Service Level:</b> To be completed within 45 days from Milestone M3.</p> <p><b><u>Milestone M5</u></b></p> <p><b>Service Area:</b> Complete Implementation of CDC solution and data transfer from source system to the targets for total 500 tables.</p> <p><b>Service Level:</b> To be completed within 45 days from Milestone M4.</p> <p><b><u>Milestone M6</u></b></p> <p><b>Service Area:</b> Complete implementation of CDC solution and data transfer from source system to all the relevant targets mentioned in RFP for total 1000 tables.</p> <p><b>Service Level:</b> To be completed within 45 days from M5.</p> <p><b><u>Milestone M7</u></b></p> <p><b>Service Area:</b> Complete Implementation of ETL at required targets for 100 tables.</p> <p><b>Service Level:</b> To be completed within 60 days from milestone M3. <b>Penalty:</b> 0.5% of Total implementation cost for delay per week.</p> <p><b><u>Milestone M8</u></b></p> <p><b>Service Area:</b> Complete Implementation of ETL at required targets for all tables upto maximum 500 tables.</p> <p><b>Service Level:</b> To be completed within 75 days from milestone M7.</p>
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		<b>Service Area:</b> Implementation of the end-to-end solution at all source and target systems.		<b><u>Milestone M10</u></b>  <b>Service Area:</b> Complete Implementation of the end-to-end solution for all in scope deliverables and at all in-scope source and target systems remaining, if any.
13.	Commercial Annexure-18-CDCETL	CommercialAnnexure18CDCETLV2.xls	<b>Modification</b>	CommercialAnnexure18CDCETLV3.xls

**Section-A**

**Existing Timeline Table**

<b>Sr. No. of Milestones</b>	<b>Milestones</b>	<b>Maximum number of days</b>
M1	All activities related to setup and kick-off of the project by bidder.	15 days from PO Date
M2	Detailed Project Plan and Design Document submission by bidder.	15 days from M1
M3	All tool/software/solution License Procurement and implementation. Compliance of CDC-ETL Solution to applicable CA, VA, PT, IS Audit, IRDA Audit, LIC’s Information Security Policy and other regulatory requirements	15 days from M2
M4	Complete Setup Creation for CDC, data transfer and Staging area (Dev, UAT, Production and DR) and CDC tool readiness with data transfer of 200 tables from Core solution.	30 days from M3
M5	Complete Setup Creation for ETL (Dev, UAT, Production and DR) and ETL tool readiness with data ingestion of 200 tables at CADW.	60 days from M3

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M6	CDC-ETL tool/software/solution readiness for Remaining tables for Source and Target Systems.	90 days from M3
M7	Testing of CDC-ETL pipeline	10 days from M4,M5,M6
M8	Pilot implementation of the end-to-end solution	7 days from M7
M9	Handover of SOPs and user manual, documentations etc.	7 days from M8
M10	Implementation of the end-to-end solution at all in-scope source and target systems	30 days from M8
M11	Training of users	15 days from date of intimation
M12	Project completion sign-off	30 days from M10 and M11.

**Section-B**

**Modified Timeline Table**

<b>Sr. No. of Milestones</b>	<b>Milestones</b>	<b>Maximum number of days</b>
M1	All activities related to setup and kick-off of the project by bidder.	15 days from PO Date
M2	Detailed Project Plan and Design Document submission by bidder.	15 days from M1
M3	All tool/software/solution License Procurement and installation, setup creation including staging area/landing zone. Compliance of CDC-ETL Solution to applicable CA, VA, PT, IS Audit, IRDA Audit, LIC's Information Security Policy and other regulatory requirements.	15 days from M2
M4	Complete Implementation of CDC solution and data transfer from source system to the targets for initial 100 tables.	45 days from M3
M5	Complete Implementation of CDC solution and data transfer from source system to the targets for total 500 tables.	45 days from M4
M6	Complete implementation of CDC solution and data transfer from source system to all the relevant targets mentioned in RFP for total 1000 tables.	45 days from M5

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M7	Complete Implementation of ETL at required targets for 100 tables.	60 days from M3
M8	Complete Implementation of ETL at required targets for all tables upto maximum 500 tables.	75 days from M7
M9	Handover of SOPs and user manual, documentations etc.	7 days from M8
M10	Complete Implementation of the end-to-end solution for all in scope deliverables and at all in-scope source and target systems remaining, if any.	30 days from M8
M11	Training of users	15 days from date of intimation
M12	Project completion sign-off	30 days from M10.

**EXECUTIVE DIRECTOR (IT/Digital Transformation)**